America First! A US-centric view of global capital flows*

Peter McQuade
Central Bank of Ireland

Martin Schmitz
European Central Bank

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Abstract

A number of papers posit a unique role for the US in the international financial system (Rey 2015, Cerutti et al. 2017). This paper investigates the characteristics and determinants of US financial flows and examines how these compare and contrast with those of the rest of the world. Specifically, we combine IMF International Financial Statistics and bilateral US Bureau of Economic Analysis data to investigate the importance of US variables such as the VIX, Federal Reserve standard and non-standard monetary policy, and the US dollar exchange rate. We then investigate the relative importance of US, country-specific, and global variables by comparing the results of estimations of aggregate US financial flows with those using bilateral US financial flows, and country-level financial flows excluding those to and from the US. The econometric results indicate that variation in US variables has a quantitatively important influence on global financial flows, but that global and national risk indicators perform better in explaining rest of the world flows. Moreover, we find that the correlation between US and rest of the world flows is higher around periods of elevated uncertainty. We interpret this as evidence supporting the existence of a global financial cycle, some of which is driven by policies and events in the US.

Keywords: International capital flows, global financial crisis, monetary policy spillovers, VIX

JEL Classification: F15, F21, F36, F42, G15

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1 Introduction

The US financial system is the most sophisticated in the world. It is home to many of the largest and most complex banks and financial institutions (Standard and Poor's 2017), its financial markets are the largest and most liquid, and its stock exchanges are the most valuable. US monetary policy decisions are often considered to have global implications, partly reflecting the dominant status of the US Dollar as global reserve currency. The latter has granted the US an exorbitant privilege (Eichengreen 2012), helping it to sustain the largest current account deficit in the world (IMF 2017).

Yet, while the US maintains a preeminent role in global finance, in recent decades emerging markets have accounted for a growing fraction of GDP, international trade and international capital flows (Lane and Milesi-Ferretti 2008, Bussiere et al. 2016, Hoggarth et al. 2016, IRC 2016, McQuade and Schmitz 2017). Like the other superlatives, asset and liability flows vis-a-vis US are regularly larger than those with respect to any other country.[1] And it is the determinants of these *gross flows* (Broner et al. 2013), which are the object of interest for this paper. We investigate whether the events and policies in the US still explain a substantial portion of the variation in global capital flows, shedding light on the extent of the US role in the global financial cycle.

We begin by investigating the characteristics and determinants of US gross financial flows in isolation, and then examine how these compare and contrast with those of the rest of the world. We do this in a novel way by combining standard unilateral IMF International Financial Statistics with bilateral US Bureau of Economic Analysis data. We use these data to investigate the importance of US variables such as the VIX, Federal Reserve standard and non-standard monetary policy, and the US dollar exchange rate. We then investigate the relative importance of US, country-specific and global variables (Baker et al. 2016) by comparing the results of estimations of aggregate US financial flows with those using bilateral US financial flows, and global flows excluding the US.

This paper feeds into an ongoing and lively debate regarding the importance of the global variables in determining international capital flows. Our motivation extends from that fact that, in much of the academic research, the term *global* has frequently embodied an implicit assumption that US variables should be important everywhere. This paper simplifies and extends that logic by taking a US-centric view of global capital flows.

A number of the papers that use US variables as proxy for global factors have become very prominent and important in the literature. For instance, Forbes and Warnock (2012) highlighted the importance of the VIX, a measure of implied volatility in the US S&P 500 index, in explaining global surges and stops in capital flows. In a similar vein, Rey (2013) introduced the phrase *Global Financial Cycle*, a cycle that she argued moves with the VIX. The latter speech was given in the context of the *taper tantrum* episode that struck a number of emerging market economies (EMEs) after the US Federal Reserve announced plans to reduce its purchases of financial assets in 2013.

[1] That is, purchases of foreign assets by US investors, and purchases of US assets by foreign investors

This event prompted a large number of studies examining the cross-border effect of US Federal Reserve unconventional monetary policy, with papers such as Aizenmann et al. (2016), Dedola et al. (2017), Eichengreen and Gupta (2015) and Georgiadis (2016) finding evidence of quantitatively important spillovers from the US. As a consequence of these spillovers, Rey (2015) suggested that the countervailing policy response required of emerging markets Central Banks was so large that those economies could no longer be considered to be able to operate a truly independent monetary policy. As such the old international policy trilemma could actually be better viewed as a dilemma.

Such strong assertions have prompted some backlash. Cerutti et al. (2017) have challenged the prevailing view on the importance of global factors by arguing that US factors *only* explain about 25% of global capital flow volatility. Using unilateral data, the authors argue that most of the variation in gross capital flows is independent of common shocks or observables in a central countries, including the US. Again, much of the analysis rests heavily on the use of US variables as a proxy for global push factors.[2] Similarly, Avdjiev et al. (2016) highlight the central role of the US dollar spot exchange rate as a barometer of risk-taking capacity in capital markets, whereby cross-border bank lending falls as the dollar gets stronger, leading to greater deviations from covered interest parity.

This paper adds a number of important insights that are directly relevant for the ongoing debate on the Global Financial Cycle. The econometric results indicate that variation in US variables has a quantitatively important influence on global financial flows, but that global and national risk indicators perform better in explaining rest of the world flows. Moreover, we find that the correlation between US and rest of the world flows is higher around periods of elevated uncertainty. We interpret this as evidence supporting the existence of a global financial cycle, some of which is driven by policies and events in the US.

Our paper proceeds as follows: Section 2 outlines the evolution of US financial flows in a global context. While the share of the US in global gross flows has declined in recent years, and its importance varies substantially across countries, it remains the largest single source and destination country in the world. Section 3 briefly describes the data sources and econometric methodology, while Section 4 outlines the results of our analysis. Section 5 concludes.

2 The evolution of US financial flows in a global context

After a decade of unprecedented financial integration (Lane and Milesi-Ferretti 2008), global gross asset (liability) flows reached a peak of approximately 22 (23) percent of global GDP in 2007 Q3, of which the US alone accounted for 16% (23%) of the total.[3] Figure (1) illustrates that, at the height

[2]For instance in their panel regressions, Cerutti et al. (2017) use contemporary values of eight US variables: (a) VIX; (b) real GDP growth rate; (c) nominal policy rate; (d) real policy rate; (e) TED spread; (f) yield curve slope; (g) REER change; and (h) M2 growth.

[3]As is common in the literature, the equivalent terms 'gross liability flows' and 'gross inflows' mean 'net acquisition of domestic assets by foreign residents'. This reflects the fact that what is usually loosely referred to as a 'gross' flow

of the global financial crisis, gross capital asset and liability flows turned negative, representing a sharp reversal of existing foreign asset and liability positions (Lane and Milesi-Ferretti 2011). Since then US gross flows, like those of the rest of the world, have remained subdued. In 2017 Q1, global flows stood at 6.9 (6.7) percent of global GDP, 13% (24%) of which of the total was due to the US. This implies that while the US share of global asset flows declined slightly, its share of global liabilities actually increased since *Lehman Brothers*.[4] The general trend since the turn of the millennium has been for the share the US in both global asset and liability flows to decline.[5] Yet, the extent of this decline should not be overstated. The share of the US consistently remains well above the combined share of nine large emerging market economies (Brazil, Chile, China, India, Indonesia, Mexico, Russia, Saudi Arabia and Thailand).

Figure (2) presents the developments in US asset (liability) flows relative to US GDP broken down by asset type. As has been well documented, the US has generally tended to be long equity and short debt (Lane and Milesi-Ferretti 2009). This phenomenon has largely persisted in recent years, as US investors continued to purchase FDI and portfolio equity assets, while continuing to sell portfolio debt securities to foreign investors. It is also notable that the general trend of US flows is broadly similar to that of the global total displayed in Figure (1). That is, there was a reasonably consistent increase in both asset and liability flows in the pre-crisis period, a sudden collapse at the time of the global financial crisis and only a moderate recovery in the post-crisis period.

Figure (3a) presents bilateral US financial flows which are grouped into euro area (EA), other advanced economies, emerging market economies (EMEs) and the rest of the world (RoW). In the pre-crisis period US asset flows were generally concentrated in the other advanced economies group. At the height of the global financial crisis both EME and other advanced asset purchases declined drastically. In contrast, US asset purchases in the EA reached a low point around the sovereign debt crisis, but have recovered somewhat since then. In the post-crisis period US net purchases of other advanced economies' assets have been very weak compared to earlier periods, while flows to EMEs have turned close to zero since late 2015, possibly reflecting the gradual unwinding of the US Federal Reserve's non-standard monetary policy.

The euro area's and in particular, other advanced economies' net purchases of US assets declined sharply at the peak of the crisis Figure (3b). While such a trough was not observed for EME inflows to the US, there has been a consistent decline in inflows from EMEs since around 2010. In contrast, there was a pick-up in inflows from the EA, bringing inflows close to pre-crisis levels since 2015.

Regarding the role of specific countries, Figure (4a) highlights the significant role of the UK as a destination for US gross other investment flows – which largely comprise cross-border bank

is from a statistical perspective a net concept as it refers to the difference between purchases and sales of cross-border assets by residents of a different jurisdiction.

[4]This arose as the US current account balance has deteriorated, and despite the decline in the US share of global GDP over the same period.

[5]The US share of global asset (liability) flows was 17% (30%) in 2001 Q1.

lending – in the pre-crisis period, reflecting the status of London as a global banking center. These flows reversed in the immediate aftermath of the global financial crisis, although banking related flows from the US to the UK have started to recover again in recent quarters. Likewise, China accounted for a substantial portion of portfolio liability inflows to the US in the pre-crisis period, reflecting the accumulation of reserves by the People's Bank of China (Figure 4a). These have turned negative since the second half of 2015, partly reflecting concerns regarding financial stability and credit growth in China, which was associated with the release of reserves. At the same time EA net purchases of US portfolio debt increased markedly, reflecting the international portfolio rebalancing associated with the European Central Bank's Asset Purchase Programme (Coeure 2017)

Finally, both asset and liability flows vis-a-vis the US remain at a more moderate level than in the pre-crisis period, implying that the great moderation in international capital flows described at a global level by McQuade and Schmitz (2017) also appears to apply to America. Taken together, the Figures illustrate the considerable similarity between developments in global and US capital flows since the onset of the global financial crisis, and are thus consistent with the existence of a global financial cycle in which the US plays a prominent role.

3 Data and empirical strategy

In our regression analysis we first consider US capital flows expressed as a percentage of US GDP, retrieved from the Bureau of Economic Analysis. We examine both the asset and liability side and decompose total flows into FDI, portfolio equity and debt, other investment and reserves components. As a first step we run the following regression on the unilateral data using the Prais-Winsten estimator:[6]

$$Flow_t^{us} = \alpha + \beta \mathbf{X}_t^{us} + e_t \tag{1}$$

where e_t is a first-order autoregressive with an error term z_t, **Flow** is the gross asset or liability flows at quarter **t**. $\mathbf{X}^{us}$ is a vector of US explanatory variables. The latter variables are the US VIX (in logs), US quarterly GDP growth (in percent), the change in Wu and Xia's (2015) shadow Federal funds rate (in percentage points), the:change in the nominal effective exchange rate (in percent), total trade of the US (relative to GDP).

In addition to the VIX, we also include the Economic Policy Uncertainty Index (EPU) in our regressions (Baker, Bloom and Davis 2016). The Global and National EPU indices are highly correlated with the VIX but we expect the former to contain additional information for a number of reasons: the VIX is a measure of volatility over the next 30 days implied by S&P500 equity options,

[6]This method uses generalized least-squares to estimate the parameters in a regressions where the errors are serially correlated.

while the EPU is based on *scraping* newspapers for words and phrases relating to uncertainty in a number of countries in addition to the US. It follows that the uncertainty captured in the EPU is likely to emanate from events with implications outside the next 30 days. For instance, political developments, like US tax reforms, is likely to have significant macroeconomic implications, but these are only likely to translate into pronounced market volatility in the longer term. Therefore, relative to the VIX, the EPU includes extra information because it is longer-term, less equity market focused and of a more global nature.

We then switch from these unilateral data to bilateral gross flows data for the US taken from the Bureau of Economic Analysis with respect to 14 countries.[7] We use these data to derive values for asset and liability flows from the rest of the world (i.e. excluding the US) simply by subtracting US values from the aggregate values taken from from the IMFs Balance of Payments Statistics and the ECBs Balance of Payments Statistics. Hence, gross liabilities flows from the rest of the world, **row**, to country **i** at time **t** are calculated as follows:

$$Liabilities_{it}^{row} = Liabilities_{it}^{world} - Assets_{it}^{us} \tag{2}$$

Similarly, gross asset from the rest of the world to everywhere except the US are calculated as:

$$Assets_{it}^{row} = Assets_{it}^{world} - Liabilities_{it}^{us} \tag{3}$$

We then run a similar regressions to that in equation (1), but separately for the six series outlined in equations (2) and (3), namely flows vis-a-vis the whole world, the US and the world excluding the US:

$$Flow_{it} = \alpha_i + \beta \mathbf{X}_t^{us} + e_i \tag{4}$$

where **Flow** is the gross asset or liability flows from country **i** at time **t**, and including country fixed effects **alpha**. Flows variables are expressed as a percentage of country **i** GDP. Differing from the unilateral regression, in the bilateral regressions the exchange rate variable is the bilateral US exchange rate, while the other US variables remain unchanged.

We also run a set of regressions including an additional vector of standard country specific explanatory variables, to examine how much the addition of these variables improves the fit of the model. In doing so we shed light on the relative importance of US and national variables in explaining global capital flows. These national variables are the Chinn Ito capital account openness index, change in sovereign bond yields and GDP growth.

We use the *STATA*xtpcse command which is appropriate for linear cross-sectional time-series

[7]The group of countries that we focus on, primarily determined by bilateral data availability, is Australia, Belgium, Brazil, Canada, China, France, Germany, India, Italy, Japan, South Korea, Mexico, the Netherlands, and the United Kingdom. Data for Argentina, Hong Kong, Luxembourg, Singapore, Taiwan Province of China, Venezuela are excluded because of partial data availability or for a variety of other country specific anomalies.

models when the disturbances are assumed to be heteroskedastic and contemporaneously correlated across panels. The disturbances may also be assumed to be autocorrelated within panel, using Prais-Winsten estimates. This approach is also adequate, because it is very likely that there is cross-sectional dependence in the panel model due to common global shocks.

4 Results

4.1 Correlations

Before running our regression models as outlined above, we visually inspect our measures of US and RoW financial flows. The red line in Figure 5, panel (a) shows the average correlation across countries between inflows from the US to country **i**, and inflows into country **i** from the rest of the world.[8] The chart illustrates that the correlation between US and RoW flows into a given country are more highly positively correlated during periods of financial market stress, as proxied by the US VIX (the green line). This is consistent with a narrative whereby both US and RoW investor liquidated their existing overseas positions at the peak of the global financial crisis. Moreover, it is compatible with the existence of a global financial cycle as stated by Passari and Rey (2015).[9]

Figure 5, panel (b) presents the mean across countries of the same correlation described above.[10] However, in this chart the countries are split into two groups, with the red line representing the mean correlation for the two safe haven countries available in the bilateral data, namely Germany and Japan. The blue line displays the mean correlation for the remaining 12 countries. The results suggest that US and RoW flows to safe havens do not become more highly correlated during periods of elevated financial market stress. This could indicate that, in periods of uncertainty, RoW investors may unwind existing positions in safe havens more gradually, or even increase their exposure to safe havens' assets relative to the assets of other economies. In contrast, US investors may prefer domestic assets as a safe haven during periods of crisis.

4.2 Unilateral Regressions

Table (1) displays the results of regressions applying equation (1) to unilateral US data, as described above in Section (3). The result in column (1) demonstrate that this relatively parsimonious specification can explain about 37% of total US gross asset flows.

The most statistically significant explanatory variable is the VIX index, while the change in the Shadow Federal funds rate is not statistically significant. However, as also argued in McQuade

[8] Similarly, the blue line in Figure 5 shows the average correlation across countries between outflows (i.e. asset flows) from country **i** to the US and outflows from country **i** to the rest of the world.

[9] *"Large gross cross-border flows are moving in tandem across countries regardless of the exchange rate regime, they tend to rise in periods of low volatility and risk aversion and decrease in periods of high volatility and risk aversion, as measured by the VIX ... There is a global financial cycle."*

[10] The mean correlation across countries between inflows from the US to country **i**, and liability flows from the rest of the world to country **i**.

and Schmitz (2017), changes in US Federal Reserve funds rates and policies were often made in response to destabilising US domestic asset price volatility, the latter of which is reflected in the VIX. Therefore, much of the explanatory power of the VIX is likely attributable to the collapse in international capital flows at the peak of the crisis. Relatedly, the lack of statistical significance of the Shadow Federal funds rate variable may be due to the fact that the Federal Reserve drastically cut interest rates and introduced non-standard monetary policy programmes at times of financial stress, when cross-border asset flows were declining.

An appreciation of the US exchange rate is associated with a decline in US asset flows. This is consistent with the findings of Avdjiev et al. (2016) who highlight the central role of the US dollar spot exchange rate as a barometer of risk-taking capacity in capital markets. [11] Regarding the trade variable, trade and financial linkages have been shown to be correlated in the cross-section dimension (Schmitz and Hellmanzik 2017), which prompted the inclusion of the exports variable in the regression. However, we did not have strong priors as to the expected sign on this variable in time series regressions. The results indicate that an increase in exports is associated with a decline in total asset flows.

Looking across asset types of financial flows in columns (2) to (5), it is also notable that the largest coefficient on the VIX index is that on the other investment category. This suggests that banking flows were most severely affected during peak of the global financial crisis. This confirms that the results of Milesi-Ferretti and Tille (2011), who use a similar regression specification but applied to global flows, also hold, in the case of the US.

In Table (2) we run the same specification, but with US liability flows as the dependent variable. The size and statistical significance of the coefficients and the overall explanatory power of the model are largely similar to the US asset flows regressions. This is not surprising considering the high degree of correlation between asset and liability flows. The coefficient on the VIX is also large and highly statistically significant for both portfolio debt flows and other investment. Interestingly, the coefficient on the US nominal effective exchange rate remains negative and statistically significant in the US liability flows regression, particularly on other investment flows, which is consistent with the interpretation of this variable as a proxy for risk.

More rapid US growth is associated with smaller purchases of US liabilities (column 4) as overseas investors may choose to invest in non-US assets when US (global) growth is stronger. This might initially be perceived as counter-intuitive, but it is notable that this result is driven by portfolio debt. US treasuries, generally considered to be the ultimate global risk free asset, may become more appealing when US/global growth prospects become depressed.

[11] See Froot and Stein (1991) for an earlier discussion of the relation between the US dollar exchange rate and capital flows.

4.3 Rolling Unilateral Regressions

Figure (6) displays the rolling unilateral regression coefficients on total assets, using the same specification as above but with rolling regression windows of 20 quarters/5 years. Panel (a) displays the coefficient on the VIX, which is negative and highly statistically significant at the height of the global financial crisis. The coefficient on the VIX remained statistically significant for the majority of the period since but gradually declined in magnitude and was no longer statistically significant in recent quarters.

The other three panels in Figure (6) display the rolling coefficients three of the other variables included in the regression, the Shadow Federal Funds Rate, US GDP growth, and the change in the US nominal effective exchange rate. Each of these variables is negative and statistically significant around the peak of the global financial crisis, but is not statistically significant for the majority of the post-crisis period. Overall, the VIX is the only variable that remains significant throughout the majority of the period under examination.

The four panels in Figure (7) shows the rolling coefficients on the VIX across asset type.[12] Whereas the VIX is statistically significant for other investment flows up until 2012 Q2, it actually becomes larger and more significant for portfolio equity towards the end of the period, while it is not statistically significant for portfolio debt before 2012.

Overall, the results indicate that a relatively parsimonious specification can explain more than a third of variation in US flows. The signs on the US variables largely supports interpreting them as a series of proxies for risk aversion and market uncertainty. The declining size and significance of the variables over time points to the limitations of our unilateral model in explaining why US flows have remained weak in the post crisis period when the VIX declined to low levels, reflecting recovering US equity market sentiment.

We therefore explore an alternative indicator of uncertainty, namely the Global EPU (Baker, Bloom and Davis 2016). As described above, this variable contains different information to the VIX. It is notable that, although particularly highly correlated at the height of the global financial crisis, the two variables have diverged somewhat in recent years (Figure 8). Whereas the VIX has declined to historic lows in recent quarters, Baker, Bloom and Davis (2016) argue that the very high level of the Global EPU observed recently reflects, among other things, the increasingly acrimonious political climate in the US, as well as increased political and economic uncertainty in the EU following the BREXIT referendum result. Both of these events may be significant developments for the process of globalisation, one dimension of which is international capital flows.

Figure (9) displays the coefficients from unilateral regressions where the VIX is replaced by the Global EPU. Despite these divergences, the overall pattern of statistical significance across asset types appears remarkably similar to that observed for the VIX. The EPU variable remains significant in the Total Assets (Panel (a)) throughout much of the period under examination,

[12] The VIX is generally not significant in the regressions on FDI.

although the size of the coefficient declines over time. The EPU is only statistically significant for other investment flows up until 2012 Q2, while it actually becomes larger toward the end of the period for portfolio equity. Contrary to what was observed in the case of the VIX, it is only statistically significant for portfolio debt before 2012.

4.4 Bilateral Regressions

Table (3a) applies the regression specification described in equation (4), with columns (1) to (3) showing the results for the following gross total flow aggregates; (1) world liability flows, (2) US assets flows, (3) the rest of the world liability flows (i.e. excluding those directly from either the US).

Looking at the results, the coefficient on the VIX index and the US bilateral exchange rate is statistically significant only in column (2), ie. for US asset flows. In the case of column (1), the coefficient on the VIX is on the border of statistical significance in the regression on global total liability flows. Looking across asset types in Table (3a) columns (4) to (6) and Table (3b) columns (7) to (12) we observe that the coefficient on the VIX index is statistically significant in the case US asset flows for portfolio equity, portfolio debt assets and other investment.[13] While the VIX is significant for world portfolio debt and other investment liability flows, it is only statistically significant for RoW portfolio debt liability flows. Taken together, these results suggest that the VIX is generally more relevant for explaining US flows than RoW flows. Similarly, the coefficient on the bilateral US exchange rate in Column (2) indicates that when the US Dollar appreciates, US investors decrease their overseas investments. The same result applies to US portfolio debt and other investment asset flows. In contrast the US exchange rate is not statistically significant for any asset category for either World or RoW liability flows. Again, this suggests that the US bilateral exchange rate works best for explaining US flows.

Table (4) shows the results of regressions where the Global EPU variable is added to the right hand side of the regressions. This variable is negative and statistically significant for total World liabilities, US assets and RoW liability flows (columns 1 to 3 respectively). The EPU variable is also statistically significant for World and RoW portfolio debt liability flows (columns 7 and 9). When the EPU is added the VIX remains statistically significant for total US asset flows, as well as US portfolio equity and other investment asset flows (columns 2, 5 and 11). These results suggest the VIX is a better proxy for US uncertainty, where as the EPU performs better in explaining RoW flows. The EPU thus appears to be a better proxy for global uncertainty than the VIX.

Table (5) includes additional partner country specific variables, namely the Chinn Ito capital account openness index, change in sovereign bond yields and domestic GDP growth. Countries with more open capital accounts experienced lower total inflows from the RoW, driven by the

[13]The VIX is not statistically significant even for US FDI flows. This is consistent with what was described above in Section (2), where it was noted that, in comparison to other assets types, US FDI flows did not exhibit the same pronounced collapse at the peak of the global financial crisis.

other investment category. They also received lower portfolio debt flows from the US but greater portfolio equity flows. Countries that grew more rapidly received greater total inflows from the RoW, drvien by the other investment category. Including the additional partner country specific variables does not substantially alter the findings for the US and global variables, but neither does it greatly increase the explanatory power of the model.

Finally, we run a regression of the 13 national EPU Indices on time fixed effects to capture the country invariant component. We then include the estimated fixed effects (which can be thought of as the global component) and residuals (the country specific component) as separate variables in the bilateral regressions. The results in Table (6) demonstrate that for total and portfolio debt liabilities, it is the global component of the EPU that is negative and statistically significant. In the case case of other investment, it is the country specific component of the national EPU that is negative and statistically significant.

Further research remains to be done to refine the regression specification, including through the inclusion of additional global and partner country variables, performing robustness tests and expanding data coverage where possible. For instance, future versions of the paper will apply similar regressions to those outlined above to World asset/US liability data, investigate the importance of currency denomination, and run regressions at a regional level of aggregation. Nevertheless, the results of these exploratory and preliminary regressions are consistent with hypothesis that US policies and events have important effects on global capital flows, but much of this comes through their direct effect on US flows.

5 Conclusions

A number of papers posit a unique role for the US in the international financial system (Rey 2015, Cerutti et al. 2017). This paper investigates the characteristics and determinants of US financial flows and examines how these compare and contrast with those of the rest of the world.

Specifically, we combine IMF International Financial Statistics and bilateral US Bureau of Economic Analysis data to investigate the importance of US variables such as the VIX, Federal Reserve standard and non-standard monetary policy, and the US dollar exchange rate.

While the regressions specifications remain preliminary, the results to date suggest that variation in US variables has a quantitatively important influence on global financial flows. We interpret this as evidence supporting the existence of a global financial cycle, some of which is driven by policies and events in the US.

In considering the scale of the effects outlined above, however, it is important to remember that these are confined to the impact of observable US variables. However, our results indicate that the truly global component of international capital flows, as proxied by the alternative uncertainty indices, is becoming ever more important as events in other important regions such as the EA or China could also have increasingly important consequences. Given the apparent high

degree of interconnectedness, larger cross-border policy spillovers could necessitate further efforts to coordinate policy at a regional or global level.

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Table 1: Determinants of Unilateral US Assets flows, 2003Q1 to 2017Q2

	(1) Total Assets	(2) FDI	(3) Port. Equity	(4) Port. Debt	(5) Other Inv.
VIX US volatility index	-1.976***	-0.048	-0.269*	-0.490**	-1.207**
	(0.544)	(0.142)	(0.143)	(0.214)	(0.480)
US q-o-q GDP growth	-0.274	-0.064	0.049	-0.108	-0.095
	(0.291)	(0.060)	(0.067)	(0.091)	(0.252)
Change in Shadow Federal funds rate	-0.224	-0.056	0.054	-0.046	-0.200
	(0.400)	(0.070)	(0.121)	(0.142)	(0.324)
Nominal effective exchange rate	-13.582**	-4.139***	-0.250	-4.421**	-3.886
	(5.894)	(1.439)	(1.968)	(1.758)	(4.214)
Exports	-0.670*	0.117	0.046	-0.113	-0.780**
	(0.344)	(0.102)	(0.089)	(0.122)	(0.294)
Observations	58	58	58	58	58
R-squared	0.37	0.18	0.15	0.27	0.29

Notes: The dependent variable is the ratio of quarterly US capital flows (asset or liability flows) to US GDP; the explanatory variables are the US VIX, US GDP growth, the change in the Shadow Federal Funds Rate (Wu and Xia 2015), the USD Nominal Effective Exchange Rate, US exports and imports divided by US GDP. All variables are contemporaneous. Flows data are from the IMF IFS. Robust standard errors in brackets. * significant at 10% level; ** significant at 5% level, *** significant at 1% level.

Table 2: Determinants of Unilateral US Liability flows, 2003Q1 to 2017Q2

VARIABLES	(1) Total Liabilities	(2) FDI	(3) Port. Equity	(4) Port. Debt	(5) Other Inv.
VIX US volatility index	-2.462***	-0.008	-0.053	-1.292***	-1.063**
	(0.756)	(0.181)	(0.128)	(0.330)	(0.408)
US q-o-q GDP growth	-0.720**	0.027	-0.004	-0.272**	-0.088
	(0.285)	(0.091)	(0.067)	(0.128)	(0.224)
Change in Shadow Federal funds rate	-0.405	0.033	-0.202	-0.244	0.005
	(0.399)	(0.094)	(0.128)	(0.189)	(0.334)
Nominal effective exchange rate	-13.669**	-0.160	-3.918***	-5.299*	-11.913***
	(6.457)	(2.060)	(1.420)	(2.950)	(4.057)
Imports	-0.709	0.133	0.128	-0.281	-0.263
	(0.656)	(0.104)	(0.092)	(0.249)	(0.314)
Observations	58	58	58	58	58
R-squared	0.29	0.03	0.24	0.30	0.33

Notes: The dependent variable is the ratio of quarterly US capital flows (asset or liability flows) to US GDP; the explanatory variables are the US VIX, US GDP growth, the change in the Shadow Federal Funds Rate (Wu and Xia 2015), the USD Nominal Effective Exchange Rate, US exports and imports divided by US GDP. All variables are contemporaneous. Flows data are from the IMF IFS. Robust standard errors in brackets. * significant at 10% level; ** significant at 5% level, *** significant at 1% level.

Table 3a: Determinants of Bilateral US Assets flows/RoW Liabilities 2003Q1 to 2017Q2

Asset Type Asset or Liability Country/Region	(1) Total Liabilities World	(2) Total Assets US	(3) Total Liabilities RoW	(4) Port. Equity Liabilities World	(5) Port. Equity Assets US	(6) Port. Equity Liabilities RoW
VIX US volatility index	-2.264	-0.522***	-1.622	-0.237	-0.135**	-0.063
	(1.388)	(0.187)	(1.257)	(0.145)	(0.057)	(0.131)
US q-o-q GDP growth	0.045	0.033	0.104	0.057	0.005	0.043
	(0.669)	(0.095)	(0.623)	(0.072)	(0.029)	(0.068)
Ch. in Shadow Fed. rate	0.522	-0.067	0.518	0.059	-0.043	0.130
	(0.856)	(0.124)	(0.795)	(0.093)	(0.038)	(0.090)
Bilateral US exchange rate	-2.692	-4.893***	0.942	-0.330	0.052	-0.417
	(5.365)	(0.919)	(5.063)	(0.643)	(0.260)	(0.628)
Observations	798	812	798	802	812	802
R-squared	0.13	0.18	0.11	0.03	0.08	0.04
Number of Countries	14	14	14	14	14	14

Notes: The dependent variable is the ratio of quarterly US capital flows (asset or liability flows) to National GDP vis-a-vis 14 countries; the explanatory variables are the US VIX, US GDP growth, the change in the Shadow Federal Funds Rate (Wu and Xia 2015), the USD Nominal Effective Exchange Rate, US exports and imports divided by US GDP. All variables are contemporaneous. Flows data are from the IMF IFS and the BEA. Robust standard errors in brackets. * significant at 10% level; ** significant at 5% level, *** significant at 1% level.

Table 3b: Determinants of Bilateral US Assets flows/RoW Liabilities 2003Q1 to 2017Q2

Asset Type Asset or Liability Country/Region	(7) Port. Debt Liabilities World	(8) Port. Debt Assets US	(9) Port. Debt Liabilities RoW	(10) Other Inv. Liabilities World	(11) Other Inv. Assets US	(12) Other Inv. Liabilities RoW
VIX US volatility index	-0.841**	-0.160**	-0.614**	-1.739*	-0.267**	-1.430
	(0.350)	(0.077)	(0.308)	(1.002)	(0.114)	(0.894)
US q-o-q GDP growth	-0.197	-0.051	-0.133	0.293	0.035	0.353
	(0.162)	(0.037)	(0.147)	(0.494)	(0.059)	(0.454)
Ch. in Shadow Fed. rate	-0.211	-0.023	-0.223	0.464	0.046	0.385
	(0.205)	(0.049)	(0.187)	(0.633)	(0.078)	(0.581)
Bilateral US exchange rate	-1.762	-1.881***	0.015	0.702	-2.617***	2.408
	(1.372)	(0.352)	(1.236)	(3.993)	(0.614)	(3.738)
Observations	778	812	778	802	807	797
R-squared	0.09	0.11	0.08	0.04	0.05	0.05
Number of Countries	14	14	14	14	14	14

Notes: The dependent variable is the ratio of quarterly US capital flows (asset or liability flows) to National GDP vis-a-vis 14 countries; the explanatory variables are the US VIX, US GDP growth, the change in the Shadow Federal Funds Rate (Wu and Xia 2015), the USD Nominal Effective Exchange Rate, US exports and imports divided by US GDP. All variables are contemporaneous. Flows data are from the IMF IFS and the BEA. Robust standard errors in brackets. * significant at 10% level; ** significant at 5% level, *** significant at 1% level.

Table 4a: Determinants of Bilateral US Assets flows/RoW Liabilities 2003Q1 to 2017Q2

	(1)	(2)	(3)	(4)	(5)	(6)
Asset Type	Total	Total	Total	Port. Equity	Port. Equity	Port. Equity
Asset or Liability	Liabilities	Assets	Liabilities	Liabilities	Assets	Liabilities
Country/Region	World	US	RoW	World	US	RoW
VIX US volatility index	-1.973*	-0.335*	-1.494	-0.233	-0.137**	-0.054
	(1.187)	(0.181)	(1.067)	(0.152)	(0.060)	(0.138)
Global EPU Index	-1.561*	-0.225*	-1.488*	-0.032	-0.056	0.010
	(0.929)	(0.130)	(0.833)	(0.113)	(0.045)	(0.101)
US q-o-q GDP growth	-0.533	0.004	-0.468	0.066	-0.001	0.054
	(0.561)	(0.090)	(0.519)	(0.076)	(0.030)	(0.073)
Ch. in Shadow Fed. rate	0.837	0.019	0.722	0.070	-0.042	0.136
	(0.715)	(0.117)	(0.660)	(0.097)	(0.039)	(0.094)
Bilateral US exchange rate	-4.138	-4.816***	-0.111	-0.341	0.084	-0.423
	(4.390)	(0.876)	(4.112)	(0.684)	(0.267)	(0.677)
Observations	740	754	740	744	754	744
R-squared	0.15	0.19	0.13	0.03	0.09	0.04
Number of Countries	13	13	13	13	13	13

Notes: The dependent variable is the ratio of quarterly US capital flows (asset or liability flows) to National GDP vis-a-vis 13 countries; the explanatory variables are the US VIX, US GDP growth, the change in the Shadow Federal Funds Rate (Wu and Xia 2015), the USD Nominal Effective Exchange Rate, US exports and imports divided by US GDP. All variables are contemporaneous. Flows data are from the IMF IFS and the BEA. Robust standard errors in brackets. * significant at 10% level; ** significant at 5% level, *** significant at 1% level.

Table 4b: Determinants of Bilateral US Assets flows/RoW Liabilities 2003Q1 to 2017Q2

	(7)	(8)	(9)	(10)	(11)	(12)
Asset Type	Port. Debt	Port. Debt	Port. Debt	Other Inv.	Other Inv.	Other Inv.
Asset or Liability	Liabilities	Assets	Liabilities	Liabilities	Assets	Liabilities
Country/Region	World	US	RoW	World	US	RoW
VIX US volatility index	-0.412	-0.050	-0.285	-1.300	-0.201*	-1.037
	(0.297)	(0.076)	(0.274)	(0.817)	(0.109)	(0.717)
Global EPU Index	-0.969***	-0.054	-0.936***	-0.674	-0.123	-0.638
	(0.243)	(0.057)	(0.221)	(0.599)	(0.077)	(0.528)
US q-o-q GDP growth	-0.153	-0.034	-0.114	-0.221	-0.003	-0.120
	(0.132)	(0.036)	(0.127)	(0.409)	(0.055)	(0.372)
Ch. in Shadow Fed. rate	-0.109	0.022	-0.153	0.485	0.070	0.374
	(0.166)	(0.047)	(0.160)	(0.523)	(0.072)	(0.475)
Bilateral US exchange rate	-1.522	-1.914***	0.324	-1.834	-2.525***	0.257
	(1.108)	(0.339)	(1.048)	(3.233)	(0.604)	(2.991)
Observations	720	754	720	744	749	739
R-squared	0.12	0.08	0.11	0.04	0.05	0.05
Number of Countries	13	13	13	13	13	13

Notes: The dependent variable is the ratio of quarterly US capital flows (asset or liability flows) to National GDP vis-a-vis 13 countries; the explanatory variables are the US VIX, US GDP growth, the change in the Shadow Federal Funds Rate (Wu and Xia 2015), the USD Nominal Effective Exchange Rate, US exports and imports divided by US GDP. All variables are contemporaneous. Flows data are from the IMF IFS and the BEA. Robust standard errors in brackets. * significant at 10% level; ** significant at 5% level, *** significant at 1% level.

Table 5a: Determinants of Bilateral US Assets flows/RoW Liabilities 2003Q1 to 2017Q2, pull factors

	(1)	(2)	(3)	(4)	(5)	(6)
Asset Type	Total	Total	Total	Port. Equity	Port. Equity	Port. Equity
Asset or Liability	Liabilities	Assets	Liabilities	Liabilities	Assets	Liabilities
Country/Region	World	US	RoW	World	US	RoW
VIX US volatility index	-1.785	-0.301	-1.287	-0.241	-0.145**	-0.056
	(1.123)	(0.186)	(0.994)	(0.152)	(0.061)	(0.140)
National EPU Index	-1.437**	-0.251*	-1.322***	0.030	-0.040	0.075
	(0.599)	(0.133)	(0.511)	(0.078)	(0.035)	(0.070)
US q-o-q GDP growth	-0.575	0.006	-0.519	0.064	0.011	0.040
	(0.541)	(0.095)	(0.496)	(0.078)	(0.031)	(0.076)
Ch. in Shadow Fed. rate	0.789	0.020	0.689	0.072	-0.045	0.141
	(0.685)	(0.121)	(0.626)	(0.098)	(0.040)	(0.095)
Bilateral US exchange rate	-3.814	-4.803***	0.282	-0.337	0.053	-0.405
	(4.361)	(0.917)	(4.052)	(0.697)	(0.277)	(0.690)
Chinn Ito KA. openness	-0.817**	-0.092	-0.796**	0.148	0.088*	0.049
	(0.349)	(0.109)	(0.324)	(0.105)	(0.046)	(0.079)
Ch. Yield	-0.180	0.008	-0.150	-0.019	-0.012	-0.002
	(0.300)	(0.063)	(0.274)	(0.045)	(0.019)	(0.043)
GDP Growth	0.368*	0.016	0.396**	0.025	-0.012	0.044
	(0.196)	(0.044)	(0.186)	(0.037)	(0.014)	(0.036)
Observations	737	751	737	741	751	741
R-squared	0.17	0.19	0.15	0.04	0.09	0.04
Number of Countries	13	13	13	13	13	13

Notes: The dependent variable is the ratio of quarterly US capital flows (asset or liability flows) to National GDP vis-a-vis 13 countries; the explanatory variables are the US VIX, US GDP growth, the change in the Shadow Federal Funds Rate (Wu and Xia 2015), the USD Nominal Effective Exchange Rate, US exports and imports divided by US GDP. All variables are contemporaneous. Flows data are from the IMF IFS and the BEA. Robust standard errors in brackets. * significant at 10% level; ** significant at 5% level, *** significant at 1% level.

Table 5b: Determinants of Bilateral US Assets flows/RoW Liabilities 2003Q1 to 2017Q2, pull factors

	(7)	(8)	(9)	(10)	(11)	(12)
Asset Type	Port. Debt	Port. Debt	Port. Debt	Other Inv.	Other Inv.	Other Inv.
Asset or Liability	Liabilities	Assets	Liabilities	Liabilities	Assets	Liabilities
Country/Region	World	US	RoW	World	US	RoW
VIX US volatility index	-0.386	-0.035	-0.274	-1.178	-0.187*	-0.894
	(0.292)	(0.078)	(0.271)	(0.783)	(0.109)	(0.686)
National EPU Index	-0.665***	-0.071	-0.612***	-0.750*	-0.101	-0.743*
	(0.162)	(0.053)	(0.145)	(0.455)	(0.093)	(0.383)
US q-o-q GDP growth	-0.097	-0.032	-0.057	-0.337	-0.016	-0.244
	(0.134)	(0.037)	(0.130)	(0.394)	(0.057)	(0.358)
Ch. in Shadow Fed. rate	-0.135	0.026	-0.179	0.466	0.073	0.371
	(0.167)	(0.048)	(0.162)	(0.498)	(0.072)	(0.451)
Bilateral US exchange rate	-1.692	-1.942***	0.209	-1.106	-2.460***	0.988
	(1.156)	(0.353)	(1.095)	(3.178)	(0.626)	(2.916)
Chinn Ito KA openness	-0.324*	-0.121*	-0.209	-0.397*	-0.011	-0.449**
	(0.177)	(0.063)	(0.138)	(0.204)	(0.074)	(0.189)
Ch. Yield	0.087	0.044*	0.045	-0.344	-0.022	-0.295
	(0.081)	(0.026)	(0.076)	(0.219)	(0.042)	(0.196)
GDP Growth	-0.025	-0.012	-0.006	0.356**	0.047	0.331**
	(0.059)	(0.017)	(0.057)	(0.145)	(0.034)	(0.134)
Observations	717	751	717	741	746	736
R-squared	0.14	0.09	0.12	0.06	0.05	0.06
Number of Countries	13	13	13	13	13	13

Notes: The dependent variable is the ratio of quarterly US capital flows (asset or liability flows) to National GDP vis-a-vis 13 countries; the explanatory variables are the US VIX, US GDP growth, the change in the Shadow Federal Funds Rate (Wu and Xia 2015), the USD Nominal Effective Exchange Rate, US exports and imports divided by US GDP. All variables are contemporaneous. Flows data are from the IMF IFS and BEA. Robust standard errors in brackets. * significant at 10% level; ** significant at 5% level, *** significant at 1% level.

Table 6a: Determinants of Bilateral US Assets flows/RoW Liabilities 2003Q1 to 2017Q2, local vs. global uncertainty

	(1)	(2)	(3)	(4)	(5)	(6)
Asset Type	Total	Total	Total	Port. Equity	Port. Equity	Port. Equity
Asset or Liability	Liabilities	Assets	Liabilities	Liabilities	Assets	Liabilities
Country/Region	World	US	RoW	World	US	RoW
VIX US volatility index	-1.860*	-0.344*	-1.383	-0.229	-0.150**	-0.034
	(1.122)	(0.181)	(1.002)	(0.152)	(0.061)	(0.140)
National EPU, ex. time FE	-0.004	-0.001	-0.004	-0.001	-0.000	-0.000
	(0.005)	(0.002)	(0.004)	(0.001)	(0.000)	(0.001)
National EPU, time FE	-0.014*	-0.001	-0.013*	0.000	-0.000	0.000
	(0.008)	(0.001)	(0.007)	(0.001)	(0.000)	(0.001)
US q-o-q GDP growth	-0.583	0.005	-0.532	0.060	0.009	0.036
	(0.542)	(0.095)	(0.498)	(0.078)	(0.031)	(0.076)
Ch. in Shadow Fed. rate	0.813	0.024	0.707	0.073	-0.045	0.144
	(0.685)	(0.120)	(0.629)	(0.098)	(0.040)	(0.095)
Bilateral US exchange rate	-3.415	-4.863***	0.712	-0.282	0.074	-0.348
	(4.385)	(0.920)	(4.090)	(0.704)	(0.279)	(0.698)
Chinn Ito KA openness	-0.572	-0.082	-0.546	0.107	0.082*	0.020
	(0.416)	(0.127)	(0.403)	(0.111)	(0.046)	(0.094)
Ch. Yield	-0.205	0.011	-0.172	-0.021	-0.013	-0.004
	(0.300)	(0.063)	(0.275)	(0.045)	(0.019)	(0.043)
GDP Growth	0.340*	0.018	0.369*	0.024	-0.013	0.041
	(0.200)	(0.045)	(0.190)	(0.038)	(0.014)	(0.038)
Observations	737	751	737	741	751	741
R-squared	0.17	0.19	0.15	0.04	0.09	0.04
Number of Countries	13	13	13	13	13	13

Notes: The dependent variable is the ratio of quarterly US capital flows (asset or liability flows) to National GDP vis-a-vis 13 countries; the explanatory variables are the US VIX, US GDP growth, the change in the Shadow Federal Funds Rate (Wu and Xia 2015), the USD Nominal Effective Exchange Rate, US exports and imports divided by US GDP. All variables are contemporaneous. Flows data are from the IMF IFS and BEA. Robust standard errors in brackets. * significant at 10% level; ** significant at 5% level, *** significant at 1% level.

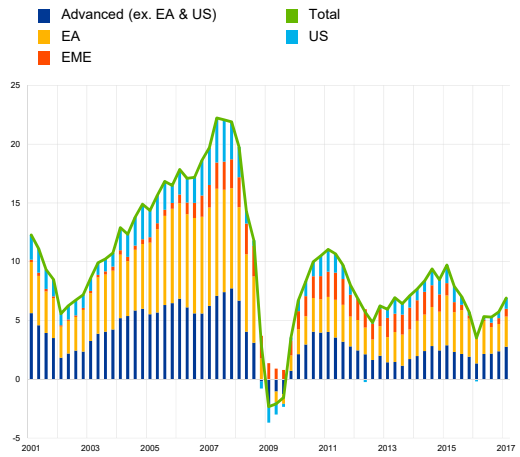
Table 6b: Determinants of Bilateral US Assets flows/RoW Liabilities 2003Q1 to 2017Q2, local vs. global uncertainty

	(7)	(8)	(9)	(10)	(11)	(12)
Asset Type	Port. Debt	Port. Debt	Port. Debt	Other Inv.	Other Inv.	Other Inv.
Asset or Liability	Liabilities	Assets	Liabilities	Liabilities	Assets	Liabilities
Country/Region	World	US	RoW	World	US	RoW
VIX US volatility index	-0.403	-0.053	-0.300	-1.304*	-0.191*	-1.039
	(0.288)	(0.077)	(0.273)	(0.762)	(0.108)	(0.672)
National EPU, ex. time FE	-0.000	-0.001	0.000	-0.004	0.000	-0.005*
	(0.001)	(0.001)	(0.001)	(0.004)	(0.001)	(0.003)
National EPU, time FE	-0.009***	-0.000	-0.008***	-0.005	-0.001	-0.004
	(0.002)	(0.000)	(0.002)	(0.005)	(0.001)	(0.004)
US q-o-q GDP growth	-0.119	-0.032	-0.085	-0.322	-0.018	-0.234
	(0.128)	(0.037)	(0.125)	(0.393)	(0.058)	(0.357)
Ch. in Shadow Fed. rate	-0.116	0.026	-0.159	0.459	0.078	0.361
	(0.161)	(0.048)	(0.158)	(0.495)	(0.073)	(0.448)
Bilateral US exchange rate	-1.409	-1.944***	0.486	-1.104	-2.477***	0.990
	(1.117)	(0.353)	(1.063)	(3.187)	(0.629)	(2.928)
Chinn Ito KA Openness	-0.105	-0.146**	0.034	-0.444*	0.038	-0.536**
	(0.183)	(0.066)	(0.153)	(0.258)	(0.097)	(0.234)
Ch. Yield	0.063	0.044*	0.025	-0.337	-0.019	-0.289
	(0.079)	(0.026)	(0.075)	(0.219)	(0.043)	(0.195)
GDP Growth	-0.047	-0.011	-0.027	0.363**	0.046	0.339**
	(0.059)	(0.017)	(0.056)	(0.148)	(0.034)	(0.136)
Observations	717	751	717	741	746	736
R-squared	0.13	0.09	0.11	0.06	0.05	0.06
Number of Countries	13	13	13	13	13	13

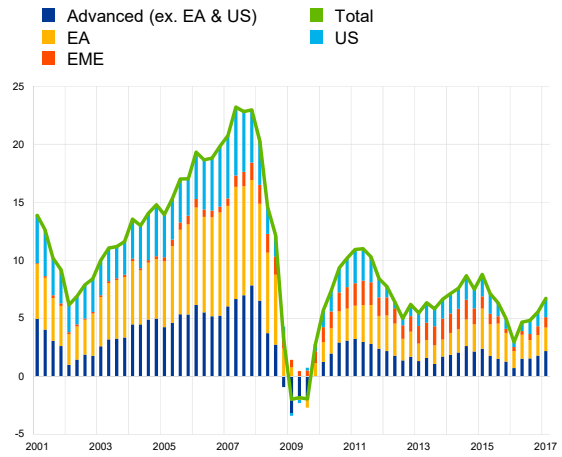
Notes: The dependent variable is the ratio of quarterly US capital flows (asset or liability flows) to National GDP vis-a-vis 13 countries; the explanatory variables are the US VIX, US GDP growth, the change in the Shadow Federal Funds Rate (Wu and Xia 2015), the USD Nominal Effective Exchange Rate, US exports and imports divided by US GDP. All variables are contemporaneous. Flows data are from the IMF IFS and BEA. Robust standard errors in brackets. * significant at 10% level; ** significant at 5% level, *** significant at 1% level.

Figure 1: US and global gross asset and liability flows

(a) Asset flows



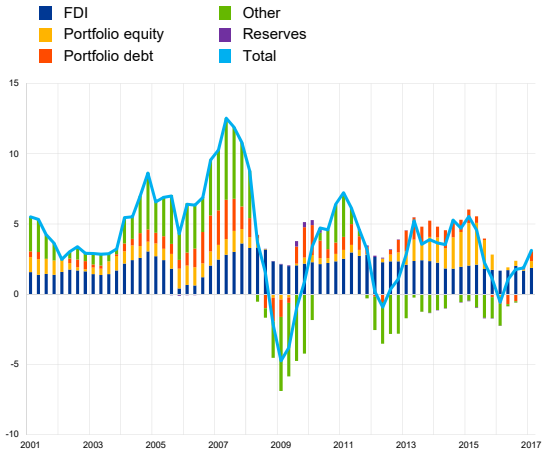
(b) Liability flows



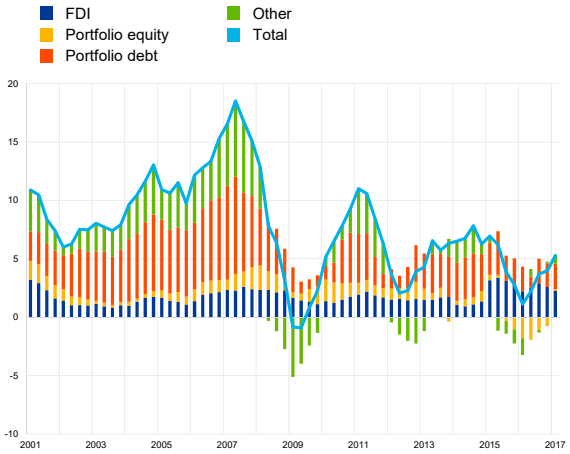
Sources: IMF and ECB Balance of Payments Statistics; 4 quarter sums; own calculations
Notes: As percentages of Global GDP.

Figure 2: US gross asset and liability flows, by asset type

(a) Asset flows



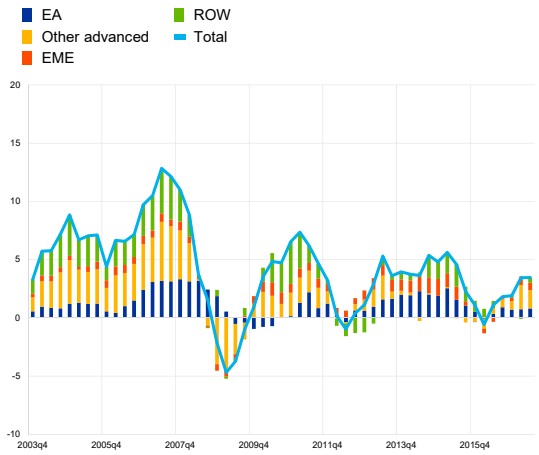
(b) Liability flows



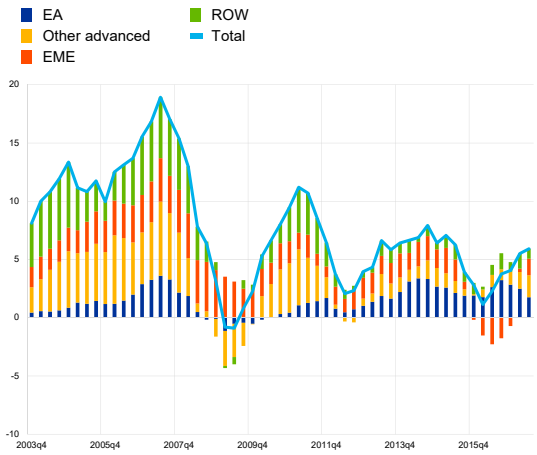
Sources: IMF and ECB Balance of Payments Statistics; 4 quarter sums; own calculations
Notes: As percentages of US GDP.

Figure 3: US gross asset and liability flows, by country group

(a) Asset flows



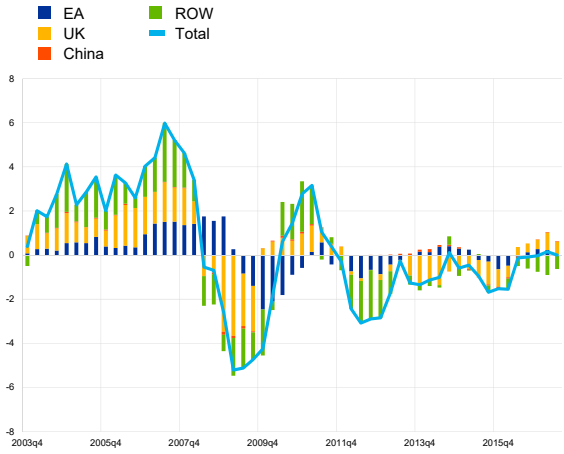
(b) Liability flows



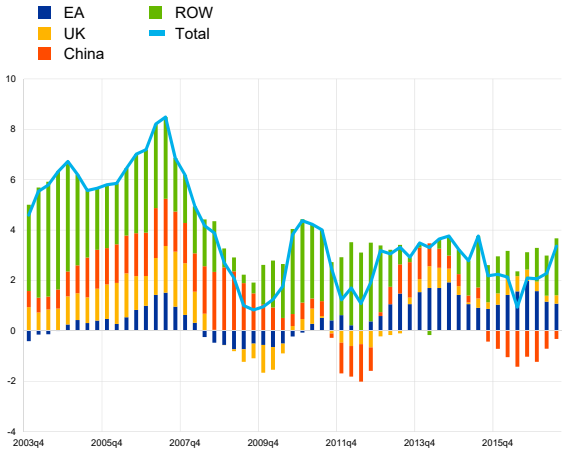
Sources: Bureau of Economic Analysis Balance of Payments Statistics; 4 quarter sums; own calculations
Notes: As percentages of US GDP.

Figure 4: US gross other investment asset and portfolio liability flows

(a) Other Investment Asset flows

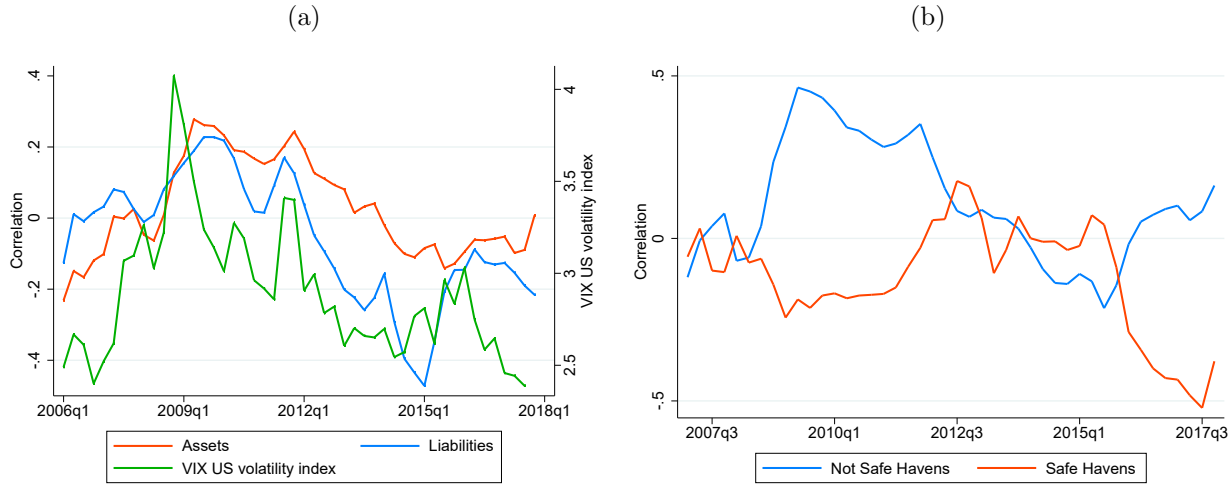


(b) Portfolio Debt Liability flows



Sources: Bureau of Economic Analysis Balance of Payments Statistics; 4 quarter sums; own calculations
Notes: As percentages of US GDP.

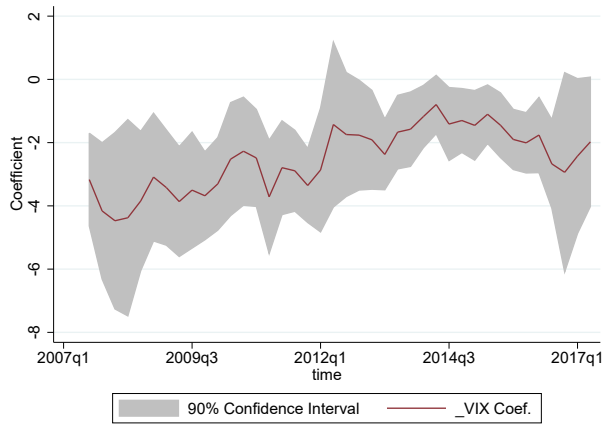
Figure 5: Correlation between US Asset and RoW Liability Flows, across countries



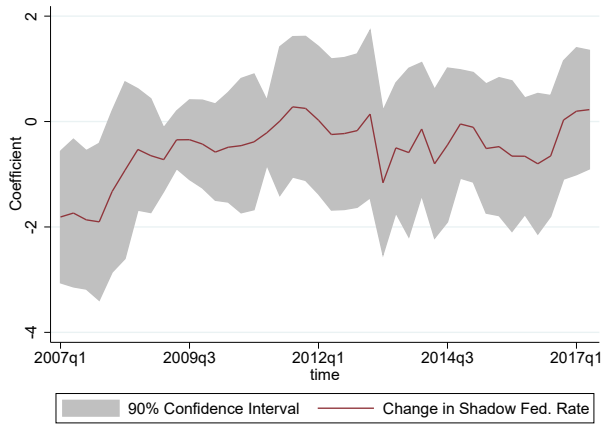
Sources: Bureau of Economic Analysis, IMF and ECB Balance of Payments Statistics; 4 quarter sums; own calculations
Notes: VIX in natural logarithms.

Figure 6: Rolling coefficients on Unilateral US data

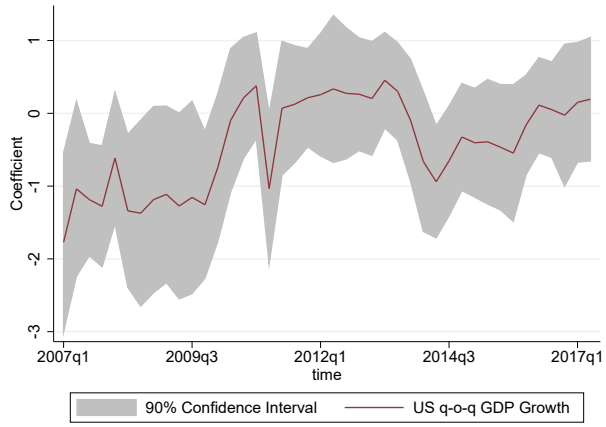
(a) VIX



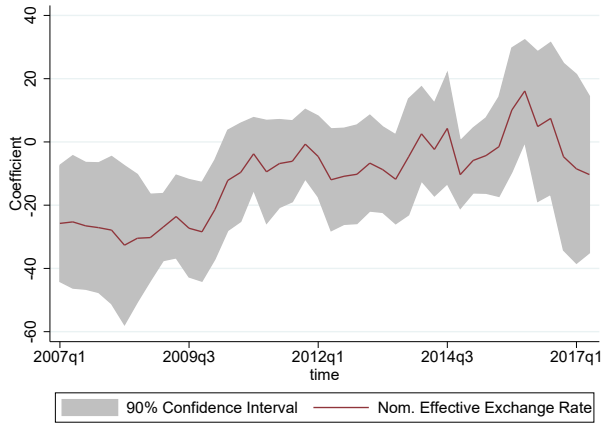
(b) Change in Shadow Federal Funds Rate



(c) US GDP Growth



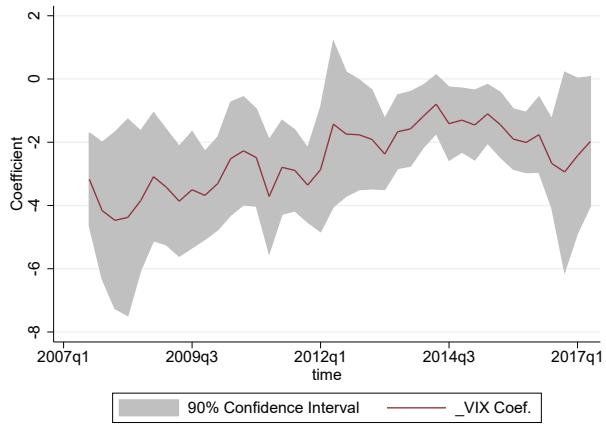
(d) Nominal Effective Exchange Rate



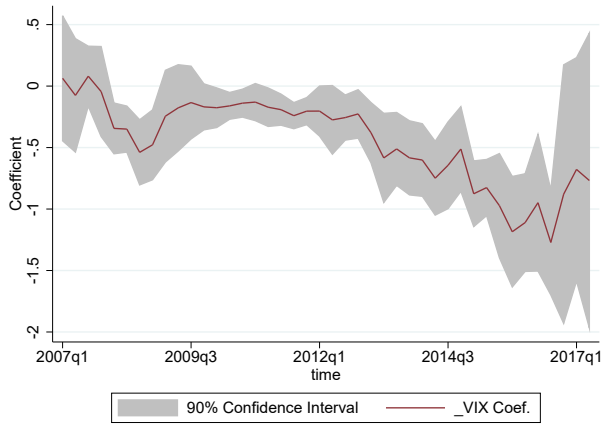
Sources: Bureau of Economic Analysis Balance of Payments Statistics; own calculations
Notes: Rolling unilateral regression coefficients on total assets. Regression window 20 quarters. Rhs variables: VIX, Change in the Shadow Federal Funds Rate, US GDP growth, Change in the US Nominal Effective Exchange Rate.

Figure 7: Rolling VIX coefficients on Unilateral US data

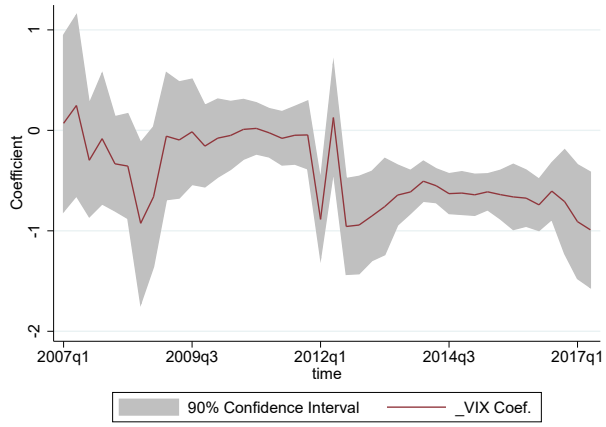
(a) Total Assets



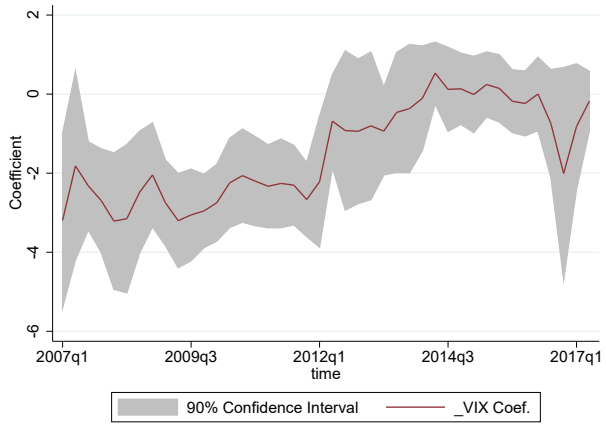
(b) Portfolio Equity



(c) Portfolio Debt



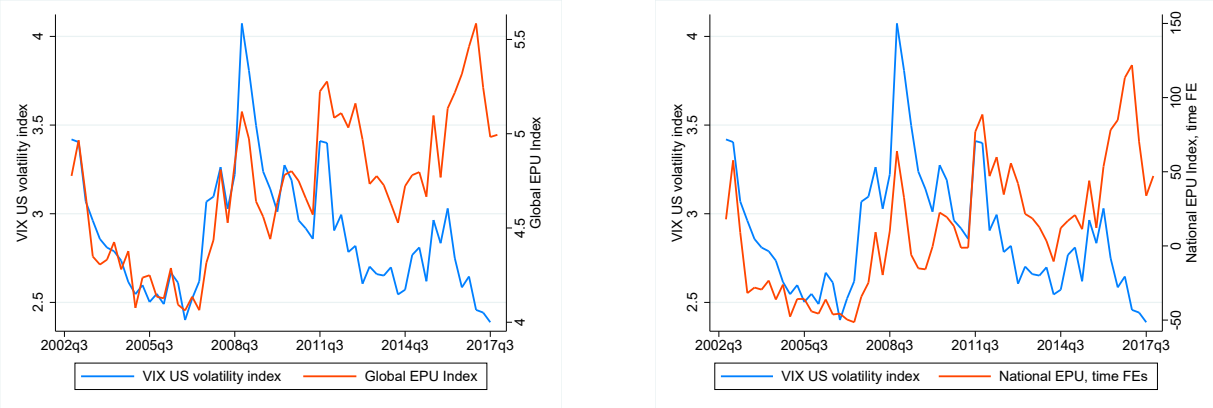
(d) Other Investment



Sources: Bureau of Economic Analysis Balance of Payments Statistics; own calculations
Notes: Rolling unilateral regression coefficients on total assets. Regression window 20 quarters. Rhs variable: VIX

Figure 8: Correlation between US Asset and RoW Liability Flows, across countries

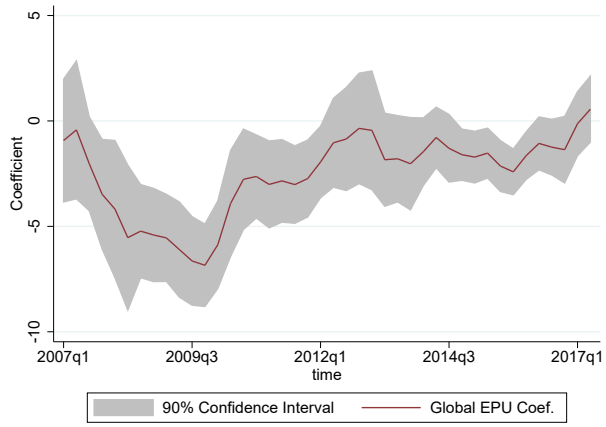
(a) VIX and Global Economic Policy Uncertainty (b) VIX and Time Fixed Effects from National EPUs



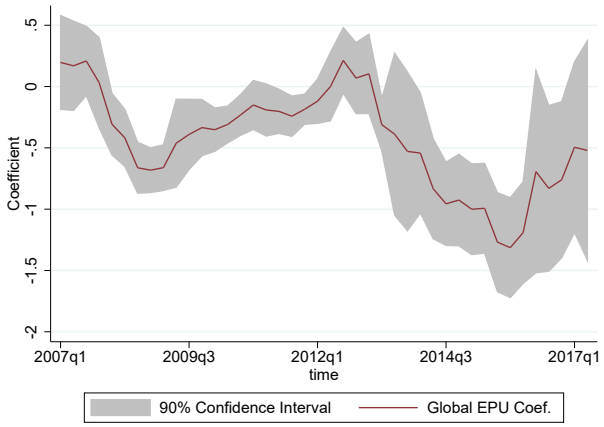
Source: Global Economic Policy Uncertainty (Baker, Bloom and Davis 2016).
Notes: Series in logs.

Figure 9: Rolling Global Economic Policy Uncertainty (EPU) coefficients on Multilateral US data

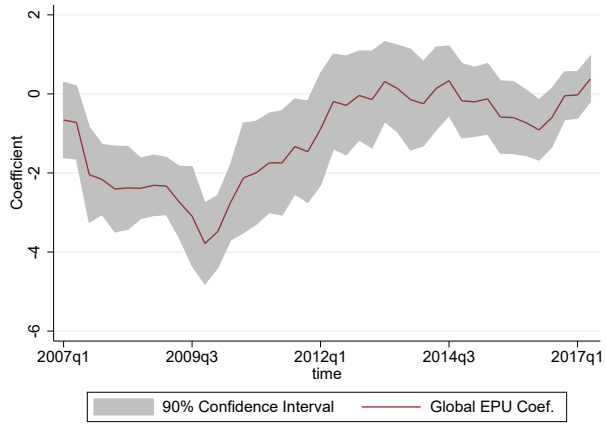
(a) Total Assets



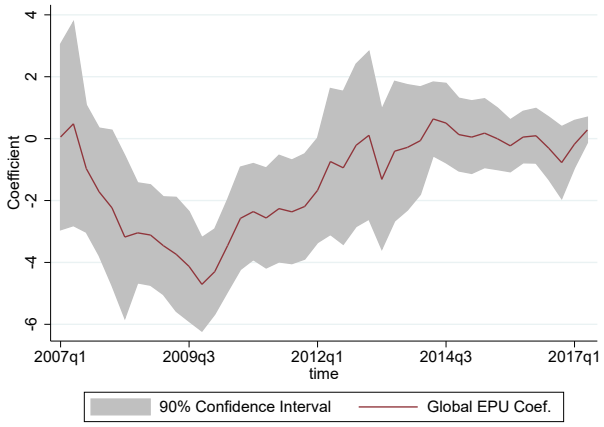
(b) Portfolio Equity



(c) Portfolio Debt



(d) Other Investment



Sources: Bureau of Economic Analysis Balance of Payments Statistics; own calculations
Notes: Rolling unilateral regression coefficients on total assets. Regression window 20 quarters. Rhs variable: Global Economic Policy Uncertainty (Baker, Bloom and Davis 2016).